Whence comes violence: a biological and evolutionary approach?

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In this paper I will look briefly at the problem of human violence in light of our primate origins, and in light Genesis.

Any exploration of human violence must be multi-faceted and inter-disciplinary. Human violence is a physical, genetic, chemical, social, cultural and spiritual phenomenon. In this session I will look more closely at embodied violence, the inheritance of violence that comes with our particular animal constitution, that which humans have inherited from ape and hominid precursors and which we share with our chimp cousins.

I argue that a part of our understanding of violence is an appreciation that comes from living with the scientific story of our origins. This brings us into transversal dialogue with the Genesis story of Adam and Eve and their "reaching out" for the fruit of the tree of good and evil.

"Transversal" dialogue is a term borrowed from a number of disciplines which refers to the kind of dialogue between disciplines that lays one against the other, but that does not attempt to reduce one side to the other, that quarries one language game for clues or resonance with the other. In this case there is the scientific story of the origins and causes of violence laid alongside the theological story of human origins and its explanations of evil. How do hominid origins and other violent primates make us think about the meaning of sin and responsibility for violence? And contrariwise how does the story of Adam and Eve and temptation resonate in the scientific story of origins? In order to approach a coherent understanding of evil I argue that both stories are required, and that both stories need to be brought into transversal dialogue.

I will be referring in particular to two works. One is Mary Midgley's *Beast and Man*, which is a philosophical investigation of the misunderstandings surrounding human animality.² The other is Wendel Van Huyssteen's *Are we Alone*, the book form of the 2004 Gifford Lectures investigating the theological theme of *imago Dei* in light of the scientific record of origins.

But I begin with Genesis. I argue that although Genesis has been successfully reinterpreted in eschatological and existentialist ways these interpretations cannot exhaust the text which inevitably has also an historic component, albeit one that must be re-understood and reinterpreted in light of the complexities emerging from anthropology, paleontology, genetics, and also more recent studies in animal behaviour. In this I follow Henri Blocher who argues that while Genesis has a highly complex literary and mythical structure that does not thereby rule out some form of historical reality and some historical reading as well. He says:

Such a combination of imagery (of whatever provenance) and a message about definite events is familiar in Scripture; one need only think of Ezekiel's allegories, of apocalyptic visions, and of many of Jesus' parables. It involves no tension. It should cause no embarrassment. Thinking otherwise is unwarranted prejudice,.. The problem is not

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¹ J. Wentzel Van Huyssteen, *Alone in the World?: Human Uniqueness in Science and Theology* (Grand Rapids, Mich/Cambridge, UK: Eerdmans, 2006).

² Mary Midgley, *Beast and Man: TheRoots o fHuman Desire*, (Oxford: Routledge, 2002)

historiography as a genre narrowly ...but correspondence with discrete realities in our ordinary space and sequential time.³

If we allow an historical/realist edge to Genesis this immediately places us in conversation and potential conflict with science. Blocher is saying that we cannot afford not to go there, however complex and fraught is the dialogue.

The dialogue is fraught because the literalist fundamentalist association with any historical interpretation runs so deep. The older, literalistic explanation of our human state, stemming from Genesis, is that there was a falling into violence that followed our very creation as humans. There was once a reading of Genesis which still has sway in some segments of the church, which says that human beings and all animals lived in the splendour of paradise, without death, but that humans were tempted, fell and were banished from Eden. With them the whole of the cosmos also fell. Death was the result, and murder the first sin. Humans, however, were made in the image of God, placed in dominion over the rest of life, and destined to eternal life of one sort or another, while the spirits of animals returned to earth. Hence the enormous emphasis upon salvation alone, and the growing ecological estrangement of the Christian millennia.

No longer is this a viable history, though what exactly should be given up, and what changed, and what kept is the crux of the matter. Mary Midgley has argued that when we give up an idea we give up as little as possible. In giving up Adam and Eve we may have relinquished all sense of original sin, but not the sense of distinction from animals, and the sense of distinction from other people who do violent acts.

The long history of evolutionary progression, however, lays the ground clearly on several facets of our history.

- 1. In the words of Van Huyssteen " it is no longer possible to claim some past paradise in which humans possessed moral perfection, a state from which our species somehow has "fallen" into perpetual decline." ⁴
- 2. Physical death, at least, is intimately welded into the fabric of life; there was no time when death was not.
- 3. Evolutionary history has also told us that we are animals, and that we share a common history, with primates, with mammals, and ultimately with all life
- 4. Evolutionary genetics tells us that we are almost indistinguishable as people, one from another.

This so seems to contradict the link in the old interpretation of Genesis between death and human fall, and the separation of animal from human, that skepticism or a wholesale reinterpretation of this myth of origins has been the most common reaction.

I think however, that it is possible to go back to Genesis and find meaning that also might help in the search for the meaning and origins of violence.

So in this next half hour or so I will argue that we can find analogies or parallels between the scientific picture and the grasping after knowledge that is spoken of in Genesis but that there is no clear and demarcated threshold at which it happened. There are images and shadows and resonance

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³ Henri Blocher, *Original Sin: Illuminating the Riddle*, (Leicester: Apollos, 1997), 50

⁴ Van Huyssteen, 37

of what is called the Fall in human and primate history. I will also argue that although for both violence and *imago dei*, there is evidence of human uniqueness, there are also deep and important continuities with the intelligence and violent dispositions of human hominid precursors. The roots of human violence, and of the disturbances called sin extend back into the animal kingdom, and are shadowed today in the chimp and other primate colonies that express not only degrees of language, toolmaking, and culture, but degrees of infanticide, murder, jealously and warfare. Speaking of the result of long years of investigation of these Paleolithic connections Van Huyssteen says:

In this way contemporary scientists have successfully argued for both the animality of our humanity and the triviality of racial distinctions. ..The fascinating result of this research was that both the break between humans and the great apes and the separation of races from one another were thus diminished, while at the same time human uniqueness was ever more carefully defined.⁶

A part of the problem with any coherent story of origins is not only that Christians and others have given up only parts of the Genesis story, but that there has also been only very partial appropriation of the evolutionary story in church and in society. Many secular humans don't like to dwell on our primate origins. They have no taste for it.

There is a long standing association, for example, in the history of Western thought, with some notable exceptions, between beasts and violent or sub-human or sinful behaviour. Titus 1:12 quotes Epemides as saying "Cretans are always liars, evil brutes, lazy gluttons." It is only recently that we have begun to study wild animals in their own habitats, and to realize how false these connections are. The association between brutality and animals is curious, and proof that we have many stories very muddled together. For if wild animals are so bestial, why is it any surprise at all they we, who have evolved out of them sometimes are? A part of the answer is that we haven't fully internalized this evolution, or we think it is so far back as not to matter. Another reason is that we take what we want from the primal story of origins. We take that we are made in the image of God, and animals are not. We take a spiritual separation, forgetting that another part of the story refers to the fallenness of humans rather than animals.

What then do we know of our scientific history?

We know that most animals kill only to eat, and this includes wolves and the big Cats. Most animals are not bestial at all. But some of the higher primates are. From primate studies we know that whatever violence we have did not emerge for the first time with our humanity, but before. In some of the higher primates there is infanticide, murder, aggression, and occasional warfare. On the whole, although we can see some of our traits reflected in them, they are not anywhere near as violent as we are in effect. Some chimpanzees are more violent, but they make up almost as often as they fight. Chimpanzees don't pose a nuclear or ecological hazard to all life.

Of the twenty or so hominids around on the earth 2 million years ago, we are the only ones left, and we are the most violent. Even within homo sapiens our ancestors must undoubtedly be among the most violent humans or we would not be here to tell the tale. Thus whatever problem we have with violence emerged as our intelligence increased. It stretches back into our primate beginnings and is shared with some other primate groups..

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⁵ Reast and Man

⁶ Van Huyssteen, Alone in the World?: Human Uniqueness in Science and Theology, 52.

⁷ Van Huyssteen, 53

This similarity but difference from other animals is intriguing and puzzling to us. In the last century or so there has been an ongoing and persistent search for human origins, and for the mystery of what it is that makes us different from and similar to the animals. It begins with Darwin who saw the parallels in emotional life between the species.8 We have come closer than ever before to understanding those parallels in the much more coherent accounts we have of animal behaviour, and in the comparisons available only in the last year, from chimp and human genome. The search for origins, for a coherent history of our past is an urgent scientific quest. Because this is so it is also an urgent theological task to do the work of transversal dialogue and integration. Mary Midgley, for instance, says of chimps:

There is no question of keeping the chimps out of the castle. They and many other animals have always been inside, and only our conceit and prejudice have stopped us from seeing them. They are all over the ground floor, which is still a central area of our life as well as theirs. But there are many other floors to which they do not go and cannot, because they have never wanted to enough, and so have never developed their powers beyond a certain rudimentary point.9

Why then have we refused to see them? Midgley goes on to say that this is because we not internalized evolution, and not examined Genesis properly. We have lived within a threatening dead modernist world view, and have wanted to separate ourselves from it.¹⁰

This denial of our embeddeness in nature, and of our connection with higher primates, has led to the Blank Slate view of human nature by which the human being is thought to be completely neutral or even good at birth, influenced subsequently only by culture. Existentialist views of human nature add to this influence the accumulated effects of our own free actions. This cluster of views of humanity denies that humans have a given, inherited human nature, or set of dispositions and preferences. All of these are ways by which the freedom of the human is asserted, and the givenness of human nature is denied. Thus also the animal nature of human nature is also denied, and especially an animal inheritance that is balanced toward the aggressive. This is the case for both believer and sceptic. But Midgely is arguing that we are beasts, that we emerged out of them, that we cannot afford to think this way. We are not blank slates at birth. Apart from all other considerations, she says, to think this way is to proceed "as if the world contained only dead matter (things) on the one hand and fully rational, educated, adult human beings on the other—as if there were no other lifeforms." That she believes, has proved fatal to other life forms.

Why are we violent? There is of course, some truth in an existentialist view of human behaviour. There is a moment of choice, and there is a threshold in each life as one passes from a state of relative innocence to one of conscious choice. But the choosing self is a given, is inherited, is already a set of emotional and physical preferences, and these extend backwards deep into our primate beginnings.

Yet to say that we have a given, human nature, is not to say that we are determined, nor that we must behave a certain way. It does not mean that we are born with a corrupted imago dei. Rather it refers to a balance, a predilection, a vulnerability. Midgley asks:

¹¹ Beast and Man, 18

⁸ Charles Darwin, *The Expression of Emotions in Man and Animals*, (New York: New York University Press, 1990)

⁹ Beast and Man, 217

¹⁰ Beast and Man, Xxix.

what does it mean to say [humans are] naturally aggressive.? To the ethnologist it certainly does not mean that [they are] basically aggressive, that [this is their] sole or overwhelming motive. It means that [they are] aggressive among another things, that in [their] repertory of natural tendencies there is one to attack other members of [their] species sometimes, without being taught to, without needing to as a means to another end, and without always having what seems to be adequate provocation.¹²

Midgley wants to emphasize that we do have a human nature, a given, and that this is evolved from animal beginnings. It is now well known that the cross-overs between humans and higher primates in terms of language, culture, tools, even culture are profound. The beginnings of these ingredients of our human rationality and capacity for violence go deep into our animal cousins and primate ancestors. This is a part of our story.

It means that there are no easy structural boundaries between the ape pre-cursor and the hominid who was to believe it was made in the image of God. Species differentiation can take millions of years, and there is some evidence that it took this long in humans. Moreover, the innate abilities that culminate in the kind of rationality and spirituality we possess long predated us in some kind of primitive form. The shadow of the *imago Dei* stretches way back. Although we have always known that we were animal and lived amongst the animals the depth of that connection is only now apparent.

Where then does this leave us in terms of theological interpretations of violence and of origins, for they are related? We can easily look at this data and think that Genesis was wrong. There is nothing special about us at all. In his Gifford lectures Van Huyssteen argues otherwise. He argues that the scientific data is sufficient to show there is a fluidity to our intelligence, and opening up of interconnected intelligences that is unique in humanity, but this conclusion is a judgment call, made after long and deliberate transversal indwelling of the multiple disciplines associated with human being. Van Huyssteen quotes the now extensive scientific evidence that suggests there has been a remarkable opening up of the human mind in the second wave of hominid progression out of Africa, the progression which encountered and eventually replaced Neanderthal. This is the mind that made the art in the caves of France and Spain. This is also the mind that may have violently displaced their Neanderthal cousins.

There is every scientific reason to accept that there are analogies to what we call the image of God, but they are in capacities which are in continuity with our ape precursors.

Thus whatever work the *imago dei* doctrine does, starkly separating us from animals is not the effect. Similarly with our tendencies to violence. There are peaceful hominids, and more peaceful mammals. Gorillas appear to be peaceful. Chimps are not. Wolves, says Midgley are "by human standards, paragons of steadiness and good conduct."

With our closest relatives, the chimps—although our common ancestor was 5 million years ago—we share a violent inheritance. Their violence is more muted, not having the acute intelligence, the language, the drive, and the culture to exacerbate the greatness and the depth of it.

The Christian response

The theological counter-weight to *imago Dei*, however, is the Fall. Yet theology has largely deserted the landscape of the past, except in eccentric or fundamentalist ways. Instead, Genesis has been mined theologically for its premonitions of the future. The Fall from Kierkegard to Niebuhr, to

¹² Beast and Man, 56

¹³ Beast and Man, 25

Moltmann and Pannenberg has been reinterpreted as the existential fall of each human being into the complexity of human sin around us, or eschatologically in terms of some image of perfection in the future. All of this is true as one interpretation of our predicament and of the text. But it has made the past incoherent. Since Darwin there has been no coherent generally believed theological understanding of origins. Existentialist and eschatological renderings of Genesis have rendered the text immune to scientific interrogation, but they have not cleared the air, especially when the sciences are so seriously looking backwards; especially when there is such confusion about how we should deal with our human nature, in courts of law, in schools, and in peace-making.

There have been strong recent theological tendency to overlook the Fall. Some theologians have argued that this is an artificial construct for the events of Genesis 3. I believe, however, that without entering into this territory in some manner radical evil is inexplicable. Mundane, everyday evil can be explained, but not the horrendous type.

I think there is something important in this text that contributes to our understanding of evil. Something mysterious is associated with human becoming. Whatever it is, though, science tells us human becoming was *not* the beginning of violence, *not* the edge of innocence and *not* the beginnings of death.

The Fall is as good a name as any, however, for the crisis that has been mirrored in many other tales of origins. Like many biblical concepts it resonates at various depths. When we sit with our violent nature, and the Genesis myth, with the long history of violence of various sorts, what does it all mean? Can we make a narrative that makes sense? At the very least there were transitions in our hominid development which could relate to fallenness.

There are many questions which we face: In particular, was there a crisis point over which humans stepped? Is our particular consciousness linked to a tendency to violence? Does caring and possessing link with a need to control others. Are hierarchical societies particularly violent? Is it possible to be human and not be violent?

The answers to these questions require a long period of sitting with the two stories, of letting the meaning of one wash over the other. Whatever they mean we can trace a series of moments of which we are vaguely aware in the biological record. They don't prove a Fall, but they do give corroboration of such a concept from another discipline.

- 1. There was a Fall of sorts before the dawn of humanity when some hominids became meat eaters. Eating meat may have been required for the big push upwards of our brains that enabled human consciousness. Conversely our enlarging brains made the tool-making that is required for regular meat harvesting possible, especially in animals without claws or strong jaws. But meat eating is necessarily more violent than plant eating. Were there more peaceful hominids which preceded humanity? The anthropological record suggests so. The intriguing difference between Gen 1:29 and Gen 9:3 also suggests this threshold.
- 2. There was a Fall as well as a leap in intellectual capacity and expression in our first homo sapiens of the Upper Paleolithic period who drew magnificent images on the caves of Garas in French Pyrenees in France, and in parts of Spain, and who set out to bring all life on this planet under their domination.¹⁴
- 3. Some authors like Daniel Quinn---no friend of Christianity--have argued that there was a Fall in the beginnings of agriculture, and the increased level of surveillance and territorial aggression, and

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¹⁴ Van Huyssteen, 146f

dominion of the earth, that that required. In every case the fall brought with it an increase in greatness as well, an increase in the knowledge of good and evil. ¹⁵

4. Finally Michael Polanyi has asked whether, in the turn to technology, we have not taken again from the tree of the knowledge of good and evil. Another fall.¹⁶

Seeing a multiplicity of Falls can also be a way of blurring the boundaries. The recent understanding of emergence as a phenomenon of all physical and living things helps us to understand that there are thresholds which may be very hard to isolate or even define, but that eventually a state of affairs exists which is more than that from which it emerged.

Thus *homo sapiens* eventually emerged from hominid precursors in a process that may have taken millions of years, but was eventually accomplished. If we see this progression as God's creation it is no mistake that human consciousness emerged so slowly and God's spirit is obviously present in all previous forms of life. But a threshold has been crossed. This threshold remains shrouded in mystery, and is evidenced only at a certain point when the material culture bursts onto the scene and is not destroyed by tens of thousands of years of subsequent duration. This evidence is found in the Upper Paleolithic cave art mentioned previously, dating from 40,000 years ago. In this art Van Huyssteen and others see evidence not only of modern human consciousness but of a religious sense that has been ubiquitous in all *homo sapiens*.¹⁷ But even here there is room for doubt. Our constructions of what makes a human human may not be God's. These humans, however, were undoubtedly like us, and were of a violent tendency. It was these surges of "humanity like we are" who replaced the Neanderthal and made their way to the furthest parts of the world.

Is it possible then to see this threshold as that of becoming human, and that the very expansion of human intelligence magnified the violence that was already present in the pre-human hominids out of which homo sapiens emerged? One theological interpretation of all this is to see the Fall as an inevitable result of an expansive and curious and aggressive hominid endowed with enough inner drive to make the transition to language and speech and dominion of the whole earth.

Another interpretation, which I tend to favour, adds a further dimension to this violent becoming. If we return to Genesis and to the story of Fall it is interesting that there is a serpent already there, at the heart of the story. A part of our history has humans making an alliance with a preexisting evil. None of this is precluded by the biological realities, nor by our relative states of lack of innocence mentioned above. There is an element of temptation and dissonance and hubris at the heart of created reality. The serpent does not cancel out the perfections, but the serpent is there, and is able to lure in the human in a way that non-speaking animals cannot be lured. Whatever the truth about the Fall, as our forebears made the transition to humanity, we know that they did not come to it completely innocent. Shadows of this violence and indeed of image bearing can be seen in other animals. This means that we can affirm the coherence to theological concepts like imago dei and fall, while nevertheless insisting that the separations that are endemic in our way of thinking are not fully justified, biologically or theologically. We are the same but different from animals. We are very much the same as one another. We all share the same violent past.

Thus in this first story there is something of the tragedy that accompanies all human sin and violence. There is both choosing and freedom but also inevitability, not in a deterministic sense, but in the sense that the values and greatness of which we are capable are a part of the same embeddedness in a

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¹⁵ Daniel Quinn, *Ishmael: An Adventure of Mind and Spirit* (Hodder & Stoughton, 1998).

¹⁶ Michael Polanyi, *Personal Knowledge: Towards a Post-Critical Philosophy* (Chicago, II: Chicago University Press, 1958).

¹⁷ Van Huyssteen, 161f

particular evolutionary history that has brought humanity to birth. If we ask why are we violent, I believe the answer relates both to our biological origins extending millions of years before our appearance as *homo sapiens*, and also to some cooperation at the newly emerged level of spirituality with an evil that inexplicably predated human becoming. Thus violence which has its roots in our biological inheritance takes on a life of its own in cultural and spiritual domains.

There is also unchartered territory, and perhaps an added level of explanation in our interconnection as a species. Blocher, for example, quotes CS Lewis...

...the separateness – modified only by causal relations – which we discern between individuals, is balanced, in absolute reality, by some kind of 'interanimation' of which we have no conception at all. It may be that the acts of sufferings of great archetypal individuals such as Adam and Christ are ours, not by legal fiction, metaphor, or causality, but in some much deeper fashion...there may be a tension between individuality and some other principle. ¹⁸

Today we have more scientific and empirical evidence for this sort of interanimation. Reality is understood to be much more a seamless interconnecting web than it was in a pre-quantum mechanical universe. People like Rupert Sheldrake speak of morphic fields that connect us all, and connect us with other forms of life. Interanimation may be another part of the puzzle, which is also not undermined nor precluded by scientific realties—the sense of internaimation may be more profound than we have ever previously, and certainly scientifically measured. It is consistent with John's metaphors of the vine, the branches, the being "in Christ," and "He in us." If a measure of interanimation is the case then we are absorbed into and deeply one with the decisions and actions of those who have gone before us, especially, as Lewis says, with archetypal individuals.

Where to from here.

Looking at this history helps us to understand ourselves, and perhaps to be more compassionate of those who are caught up in violence, whether individual or corporate. It helps us to see that there are biological causes among the many other causes of violence that sometimes looks as though it is only social or spiritual. Young males with nothing else to do, for example, are dangerous to others and to social cohesion. Blaming them or their parents, isolating them or indeed punishing them, has done little to cure this state of affairs. Building social policy around this inner threat might make a difference.

It helps us to see that we are all basically the same. Criminals are not a different class. For them the natural human condition, bent somewhat toward violence, has tipped into a real acting out of a given human nature. That doesn't make them so terribly different from any of the rest of us.

Lastly, what of redemption. This part, though important is very brief. I believe that Marilyn McCord Adams' talk this afternoon will relate to this. The traditionally understood fall led to a distorted theology in which humans had made some easily avoidable mistake which we were now acting out, and had been miraculously rescued by Christ. This leads to attempts to convert the individual alone, so that the eventually masses of people will be converted and will presumably be peaceful. It is blind to the deep currents of violence that run in Christian countries and communities, even to the point of being justified by Christian belief and practice.

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¹⁸ CS Lewis, *The Problem of Pain*. 1940, p75 quoted in Blocher, 97.

More secular existentialist and cultural explanations of evil tend to overemphasize the ease with which people are capable of not being violent, and tend to separate the criminal from the ordinary person. Associated models attempt to endlessly manipulate the culture to find the conditions which will maintain the person in their original state of innocence and non violence.

Coming out of an evolutionary model gives a different view of Christ. Christ's embodiment and embeddeness within the human race takes on a new character. Taking on human form was in itself a bearing of a form of violence, in the very state of being of *homo sapiens*. Marilyn McCord Adams speaks of Christ's straddling of the human and divine life forms. She says, of God's at-one-ment in Christ, that:

Talk of contagious holiness is a way of saying that when God smudges human boundaries, God in effect cancels the legitimacy of human grids in favor of Divinely established norms.¹⁹

In his resisting all violence Christ gives humanity a new hope and a new archetypal beginning, one that is in keeping with a new form of interanimation, united to him in Spirit, and not only to our primal beginnings. Christ unmasks the violence at the heart of human nature and human society. He takes the brunt of interanimate human violence, absorbing it in his person. He reveals the deeper moral law, the new life, the resurrection that emerges out of this relinquishing of violence, of the first impulse of humanity, a violent impulse that has been deeply linked to religion in almost all humans. This association between the embodied Christ and the renunciation of violence makes more terrible the continued linking of Christianity and violence that is now occurring to the point that many people in the world associate Christian religion and practice with violence. Of all religions this should be the one that is least violent, most cooperating with the prevention of violence, even while it is most compassionate, understanding that the urge to violence is deeply emeshed in the evolved human body and spirit.

In summary then, I am saying that we must take into account our evolutionary history when considering violence. Violence became a way of life long before we had the kind of intelligence and rationality we now have as a species. The Genesis myth speaks of perfection and of evil, and both, I think can be seen and experienced in the real world. It also refers to a fallenness in humanity. This may be interpreted in a number of ways, either as the inevitable result of our fluid rationality and intelligence, coupled with an already aggressive nature, or it may refer as well to some other alliance made with pre-existing spiritual forces. We may also rescue form the Genesis record, and from the biblical drama, a sense of connection as a species that goes beyond the sense we have of ourselves as isolated beings. Contemporary science has more justification for such a belief than modernist twentieth century scientific notions. Thus both imago Dei and fallenness can be understood as making sense in both scientific stories and in theological ones. And both can be seen as extending in part back into the primate and mammal history.

Social policy can take note of this biological inheritance by managing and anticipating violent outbursts. The church must see itself as the community of those who oppose violence because it is offering a redemption in the form of Christ who was born in human form, but also born from above, absorbing and cancelling the dynamics of violence that are the result of our animal inheritance and human fallenness.

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¹⁹ Marilyn McCord Adams, *Horendous Evils and the Goodness of God* (Ithaca, London: Cornell University Press, 1999), 101.